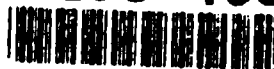


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IS DECENTRALIZED COMMAND AND CONTROL
OF TACTICAL MANEUVER UNITS A MYTH
OR REALITY?

A Monograph
by

Major Thomas M. Jordan

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School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

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Major Thomas M. Jordan

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Approved by:

LTC James M. Dubik Monograph Director
LTC James M. Dubik, MA

James R. McDonough Director, School of
COL James R. McDonough, MS Advanced Military Studies

Philip J. Brookes Director, Graduate
Philip J. Brookes, Ph.D. Degree Program

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ABSTRACT

Is Decentralized Command and Control of Tactical Maneuver Units a Myth or Reality? By Major Thomas M. Jordan, USA, 59 pages.

With the publication of the 1982 FM 100-5 Operations, the U.S. Army officially adopted the concept of decentralized operations. Based on the recognition that success in future warfare would demand soldiers and units capable of fighting on a fast-moving, non-linear battlefield, the doctrine incorporated several key components from the German mission-oriented command philosophy known as Auftragstaktik. Our commanders are expected to enhance freedom to operate and initiative through the use of mission type orders and commander's intent. However, despite further doctrinal emphasis in the 1986 version of 100-5, the application of decentralized command and control techniques is at best suspect.

This monograph first examines the theoretical aspects of decentralized command and control followed by a discussion on the adoption of decentralized command and control techniques: mission orders and commander's intent into FM 100-5. After a brief analysis of these two components, the study then examines the degree that lower-level tactical doctrine complies with FM 100-5. Finally, the paper determines the degree of practical application of mission orders and commander's intent by maneuver units training at the National Training Center.

The monograph concludes that mission orders and commander's intent are not understood and not applied by the majority of officers in infantry and armor units. Furthermore, the doctrinal analysis indicates general inconsistency in terms of definition, example orders, format and evaluation standards. These doctrinal shortcomings undoubtedly contribute to the use of imprecise terminology that results in ambiguous mission statements and poorly expressed commander's intent.

The study recommends revising current tactical terms and graphics in order to publish a common language with precise terms and supporting graphics. Second, lower tactical command control doctrine must be more closely aligned with the conceptual underpinnings from FM 100-5 and the doctrine must be consistently taught in school curriculums. Finally, officers and NCOs must effectively demonstrate their understanding of decentralized command and control doctrine through application at schools and while training in units.

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I. INTRODUCTION

During the Second World War, on the outskirts of Leningrad, Colonel Hoppe, commander of the German 424th Infantry Regiment, 126th Division, received a mission to participate in a coordinated attack to seize the town of Schlusselfburg.¹ The corps plan called for Hoppe's and Count Schwerin's combat groups to conduct an assault while the remainder of the corps attacked Leningrad. The attack was scheduled for 8 September. The capture of Schlusselfburg was critical as it would isolate Leningrad from any Soviet efforts to reinforce from the east. Because he was the corps main effort, prior to his assault, Hoppe would receive Stuka support from I and VIII Air Corps.

On the evening of the 7th, as his regiment advanced to the assault line, Hoppe lost contact with division. At dawn, the regiment was still unable to make contact. Uncertain as to the time of arrival from the Stukas, Hoppe wrestled with the dilemma of starting the attack. If he chose to attack without the Stukas, his men could suffer severe casualties. If his men were in the town when the Stukas arrived, they could be bombed as well as the Russians. If he waited, any advantage gained by his successful night move would be lost.

Hoppe decided to issue the following mission order. "The 424th Regiment will take Schlusselfburg and drive through to the 1000 yard-wide Neva river, at the point

where it leaves Lake Ladoga, dividing Schlusselfburg from Sheremet'yevka and the southern bank of Lake Ladoga from its western bank. . . time of attack is 0700 hours"²

Perhaps Colonel Hoppe's eventual decision was instigated by regulations that required decisive action. Perhaps he acted because of his experience, or because he understood the higher commander's intent and overall purpose.

Whatever the reason, Hoppe's dilemma was not unusual in war. After all, the great Prussian soldier Clausewitz described the climate of war to consist of danger, exertion, uncertainty and chance.³ As with Hoppe's experience, today's leaders should expect to face similar dilemmas, and they cannot expect perfect information. As Colonel Hoppe found, friction and fog will affect the quality of information as well as the existing communications capability.

In analyzing Hoppe's decision, one can see parallels to Airland Battle doctrine. The doctrine emphasizes initiative, risk-taking and decentralized decision-making. There is strong emphasis on freedom of action and delegation of authority all for the purpose to, "develop opportunities which the force as a whole can exploit to accomplish the mission more effectively."⁴ Similar to the German doctrine of Auftragstaktik, Airland Battle doctrine requires commanders to enhance initiative through mission type orders which include a statement of their intent as well as that of the higher commander.

Yet, after nine years since the initial publishing of the 1982 version of FM 100-5 which emphasized decentralized leadership, the leaders of our tactical units continue to practice something different from what our manuals call for. I shall argue that despite our theoretical and doctrinal embracement of decentralized decision-making exemplified through the use of mission orders and commander's intent, our ability to put theory into practice remains suspect.

The argument proceeds along the following steps: first, an explanation of theoretical aspects of decentralized command and control followed by an overview of the American tendency for centralization; second, a description of the key elements of decentralized command and control--mission orders and commander's intent; third, an analysis of the quality and application of tactical doctrine concerning mission orders and commander's intent; fourth, conclusions and implications of the research followed by suggestions for resolving the problem.

II. BACKGROUND

In Europe, during the early 19th century, the roots of decentralized command and control began to emerge in the form of dispersed tactical formations. One could argue that this change was brought about by increased weapons lethality that resulted from technological

change. Four principal technological changes having the greatest impact were: the rifled musket followed by breech-loading, magazine-fed rifles that made possible prone firing positions and finally, smokeless powder.⁵ The horrific slaughter caused by the deadly weapons gradually led to increased dispersion of the dense, mass armies of the early 19th century. Quite simply, "man decided to reduce his vulnerability through dispersion in order to save himself from annihilation in combat."⁶

Certain far-thinking professional soldiers such as the founder of the Berlin Military Society, Prussian General, Gerd von Scharnhorst, along with other Prussian officers, recognized the increased potential that dispersed formations brought to the battlefield. In a prize winning essay submitted to the Berlin Military Society in 1804, one Prussian officer contended that soldiers were no longer unthinking automatons. . . "the advent of the skirmisher marked the beginning of a new epoch in warfare. . . no longer could the soldier be treated as a mere machine, now he would be acknowledged as an important participant in any tactical scheme".⁷ In short, the Germans were "quick to realize that almost every man in battle could contribute more than just his physical prowess. . . they were among the first to institutionalize the harnessing of collective creativity within a generally accepted pattern of military action."⁸

Scharnhorst argued that one of the major problems in war was reliance on the great man. Scharnhorst concluded that fostering initiative and responsibility on the part of all officers was the best way to destroy the cult of genius.⁹ For Scharnhorst, rejecting the cult of genius meant that the officers must be encouraged to take reasonable risks in both peace and war and they must not be punished for reasonable mistakes.¹⁰

The recognition of the individual soldier's potential contribution in battle and Scharnhorst's belief that officers must be thinking, educated, and formally-trained professionals provided the fundamental tenets of the German doctrine of mission-oriented command. In a series of sweeping reforms that were designed to rebuild the ruined Prussian kingdom after the humiliating defeat at Jena, Scharnhorst was able to institute the various changes he had envisioned for almost twenty years.¹¹ One such change was adoption of decentralized, mission oriented command known as Auftragstaktik.

In sharp contrast to earlier operational theory and doctrine, Auftragstaktik prescribed an Army of well educated, well-trained officers and men...it was intended to permeate the entire Prussian Army...its foundation rested upon the assumption that each soldier, regardless of rank, was capable of leadership and therefore responsible for endeavoring at all times to carry out the "mission concept" of his superior, without question or doubt, whatever the situation demanded as he understood it. Even more significant was the implication that the leader was to act without orders, or even contrary to orders, if they did not appear consistent with the developing situation.¹²

Other factors regarding the Prussian adoption of decentralized mission-oriented command related to the nature of war itself. Intrinsic was Clausewitz's recognition that "war is the realm of chance. . . no other human activity gives it greater scope. . . chance makes everything more uncertain and interferes with the whole course of events."¹³ The art of war Clausewitz argued, "deals with living and moral forces . . . consequently, it cannot attain the absolute, or certainty; it must always leave a margin for uncertainty".¹⁴

Clausewitz recognized that one of the effects of uncertainty on the battlefield meant that the commander is subjected to ever-increasing pressure. Cumulative in nature, and manifested through the confusion and chaos that is part of war, the pressures of uncertainty eventually overwhelm the commander's capacity to exercise control.

This pressure is coupled with a dispersed battlefield which causes a reliance on reports and communications in order to project a mental picture as a basis for decision-making. However, many of these reports will invariably contain contradictory and false information.¹⁵ Reports may arrive too late for the commander to make a timely decision. Communications may fail entirely. Despite all of this, Clausewitz maintained, "decisions have usually to be made at once,

there may be no time to review the situation or even to think it through."¹⁶

Added to the commander's dilemma are the relentless and unforgiving demands of time. Time is like a damoclean sword suspended over the commander's head. The more complex operations become, the greater propensity for friction to occur with greater demands on time.

Therefore, as 20th century warfare became increasingly complex and lethal, the advocates of decentralization recognized the paradox of centralized command and control theory. The greater the demand for certainty by the centralized decision-maker, the more complex the systems become for collecting and providing information. An organization that is confronted with a task and being incapable of providing adequate information than is demanded causes either an increase in information processing capacity or a change in operation.¹⁷ Martin Van Creveld points out that an increased information capacity leads to greater complexity and the multiplication of horizontal and vertical communications channels.¹⁸ Thus, in the end, a centralized system may preclude getting inside an opponent's decision cycle. More importantly, it could result in a failure to exploit an opportunity.

Hence the paradox: the escalating demand for certainty requires better technological systems with potentially more people to process information. However,

this practice requires greater time and ultimately precludes the very thing success in war demands--rapid and decisive action.¹⁹ And, there is no doubt that in war as in business, speed is life. Richard Simpkin observed, . . . 'General's luck' surely comprehends three distinct though related elements: the creation of opportunity, the spotting of opportunity, and the exploitation of opportunity."²⁰ Clausewitz also warned that among all the military virtues, the energetic conduct of war has always contributed to glory and success.²¹

Thus, a decentralized command and control system accepts the chaotic nature of war and expects that commanders will be buffeted unmercifully by forces that are beyond human control and comprehension. Decentralized command and control theory assumes that war consists of chaos, danger, uncertainty, chance and friction. It recognizes that modern weaponry makes the dispersed, lethal battlefield a reality, and despite the availability of technological systems uncertainty is still very much a problem for the modern commander.²²

Therefore, in contrast to centralized command and control, decentralized theory suggests that subordinates closest to the situation are better equipped to deal with the immediate battlefield problems and realities.²³ The organization is streamlined to operate with less than perfect information.²⁴ Finally, decentralized command

and control unlocks the potential creativity in each soldier and enables commanders to exploit fleeting opportunities and to operate with speed of execution.²⁵

Returning to the German example, we can understand how they sought a solution to the conduct of warfare through decentralization. The Germans, "came to regard confusion as the normal state of the battlefield and the remedy was sought in further decentralization and the lowering of decision thresholds."²⁶ However, the organizational structure that supports the lowering of decision thresholds as decentralization theory suggests, and as the Germans practiced in Auftragstaktik, rests principally on four pillars. Each is equally important, without all, the structure becomes unsteady.

The first of the four pillars is an unbroken chain of trust and mutual respect running from the controlling operational commander to the tank or section commander.²⁷ Trust enables the subordinate to operate with freedom of action, while the senior trusts that the subordinate will act.²⁸ The second pillar is the training that the army does to reinforce the primacy of the judgment of the man on the scene.²⁹ In this regard, training reinforces the notion that the subordinate will exercise his initiative and respond to the situation in accordance with tactical command and operations doctrine.³⁰ Training also requires officers who are carefully selected on the basis of character, and intelligence.³¹ The third pillar is

the acknowledgement that the "higher intention is sacrosanct".³² The fourth pillar is moral courage. "Moral courage is needed in order to execute decisively an energetically correct and necessary known, without allowing oneself to err through fear of responsibility."³³

Therefore, we may conclude that mission oriented command is a holistic concept. Commanders cannot issue mission oriented orders with any reasonable chance of success unless they practice mission oriented command.

Heavily influenced by the German concept of Auftragstaktik, and in anticipation of the fluid, non-linear demands of the modern battlefield, the authors of the 1982 version of FM 100-5 incorporated decentralized operations into American doctrine. In short, like medical surgeons, the authors conducted a transplant operation consisting of a decentralized command and control system into a live patient--the American officer corps.

A significant addition that resulted from the Army-staffing of the manual was the adaption of the German conception of mission orders - Auftragstaktik. It was the FORSCOM commander, General Shoemaker, who precipitated action on it. Shoemaker saw a need for a concept of command and control under adverse conditions. The chaos of the next battlefield would make centralized control of subordinates always difficult and sometimes impossible.³⁴

Unfortunately, the incorporation of decentralized methods into doctrine conflicted with a traditional American practice of exercising centralized control over command.³⁵ In fact, the "two concepts are fundamentally

antithetical. . . one stresses control, the other command. . . one orients on machines, the other people."³⁶

Deeply rooted in our culture and history, reminiscent of the Taylor school of scientific management, the centralized approach of command and control relies heavily on existing technology to produce vast amounts of information. The generation, management, and administration of information requires large, technically oriented staffs. Their purpose is to eliminate uncertainty, thus there is emphasis on the execution of centralized decisions through detailed and precise orders.³⁷

Our predilection for technology is not without its problems.³⁸ In their quest for certainty, large staffs serve to clog the flow of vital information to the commander and preclude his ability to seize and maintain the initiative.³⁹ They routinely over control subordinate units to the point of suppressing initiative and hindering the unit's agility.⁴⁰ In this regard, J.F.C. Fuller noted, "the staff becomes an all controlling bureaucracy, a paper octopus squirting ink and wriggling its tentacles into every corner."⁴¹

There is enough evidence from this discussion to point out that there is a distinct contrast between the American tendency to practice centralized control, and the holistic doctrine of Auftragstaktik. Although our

heritage has included famous leaders who practiced mission oriented command, the decentralized command and control theory embraced by the 1982 and 1986 version of FM 100-5 is markedly different from command and control in the centralized tradition.⁴² Lacking the rich historical tradition of the Germans, the new concepts were a clear departure from previous doctrine. How well theory has become practice in the U.S. Army is a function of how two of the implementing components of decentralized command--mission orders and commander's intent--are reflected in our doctrine and used by our commanders.

III. ELEMENTS OF DECENTRALIZED COMMAND AND CONTROL

FM 100-5 states that, "whenever possible, subordinate leaders should receive their orders face-to-face from their commanders on the ground chosen for the operation. . . mission orders that specify what must be done without prescribing how it must be done should be used in most cases."⁴³ As we have seen, the relationship between the use of mission orders and the concept of decentralized operations is fundamentally related.

There is widespread agreement on the framework for decentralized decision-making. It is the system of mission-oriented orders. As in the old German task-oriented system, commanders tell subordinates what to do, but allow them as much leeway as possible to determine how to do it.⁴⁴

However, the use of mission-oriented orders can only occur in an environment of mission oriented command. This environment is based on the four pillars discussed previously.

Having established that mission orders are required, how does the doctrinal literature define the term? Joint Pub 1-02, Department of Defense Dictionary of Military and Associated Terms, defines a mission-type order as:

1. Order issued to a lower unit that includes the accomplishment of the total mission assigned to the higher headquarters.
2. Order to a unit to perform a mission without specifying how it is to be accomplished.⁴⁵

Despite the doctrinal emphasis on mission orders in the 1982 and 1986 versions of FM 100-5, many tactical manuals either neglect or superficially mention the concept. For example, two of the Army's principal manuals on staff procedures, FM 101-5, Staff Organization and Operations, dated 1984 and FM 101-5-1 Operational Terms and Symbols, dated 1985 are strangely absent of definitions of mission-type orders. FM 101-5 mentions mission orders in a description of fragmentary orders, while FM 101-5-1 leaves the term out completely.⁴⁶ A primary student reference for resident students at the Command and General Staff College, Student Text 100-9, Techniques and Procedures For Tactical Decisionmaking, dated July 1991, also fails to mention mission-type orders.⁴⁷

A survey of Infantry and Armor doctrine reveals that the term "mission order" is referred to, but it is neither defined, discussed in detail, nor is there a distinction made between a mission order and a five paragraph field order.⁴⁸ Indeed, after surveying the doctrine, one wonders what a mission order really is.

The two exceptions are FM 7-10, The Infantry Rifle Company, dated December, 1990 and FM 7-72, The Light Infantry Battalion, dated March, 1987. Although the discussion is limited, FM 7-72 indicates that the mission order, "results in directive control--control that provides a framework of what the commander wants done--not how it is to be done."⁴⁹ The manual further defines directive control as command based on tasks and purpose.⁵⁰

FM 7-10 establishes the holistic nature of mission oriented command and control.⁵¹ According to this manual, the mission order focuses on task accomplishment without specifying how commanders (or leaders) should do the task, and it addresses only the required information with no restatement of doctrine or SOPs.⁵²

If we accept the broad definition that mission orders specify "what" and not "how", then a precisely worded mission statement is imperative. Both FM 7-72 and FM 7-10 emphasize the importance of correctly identifying the mission essential tasks with their associated purposes. The result of this process, the restated

mission, "becomes the focus for the remainder of the estimate process. . . this is a clear, concise statement of the essential task(s) to be accomplished. . . and the purpose to be achieved."⁵³

Unfortunately, Army doctrine is not in clear agreement over the content of mission statements. FM 101-5 and FM 101-5-1 differ in their definition of the term "mission".⁵⁴ The difference between the two definitions is that FM 101-5 defines a mission statement as consisting of a task and purpose. FM 101-5-1 emphasizes the primary task assigned to a unit and does not include purpose.

The lack of a precise definition of "mission" is further confused by the absence of clarity regarding the definition of "task" and "operations". As a result, an operation is commonly substituted for the task and the task replaces the purpose.⁵⁵ Consider the following example: "TF 1-78 Mech attacks in zone 110900 to seize hill 437". On the surface, this mission statement appears to meet the doctrinal criteria of who, what, when, where and why. However, according to the Infantry School's interpretation of doctrine, "attacks" is not a task. It does not meet the criteria of defined and attainable as indicated by FM 25-100, Training the Force, but merely identifies the type of operation.⁵⁶ In contrast to the preceding example, FM 7-10 recommends the following as a restated mission: "A Company attacks (when) 090500Z

Dec92 (what) to seize hill 482 (where) vicinity NB 457271 (OBJ Blue) (why) to enable the battalion's main effort to destroy enemy command bunker and reserve platoon."⁵⁷

Why is this distinction between task and operation so important? Why is there so much emphasis on describing the purpose of the operation in the restated mission? A task is assigned to attain a specific purpose--tied to key terrain or to producing an effect on the enemy. By emphasizing the purpose, the subordinate receives the latitude to find ways to accomplish the desired effect on the enemy or terrain. As Colonel Hoppe discovered, when a change in situation occurs, the subordinate must determine if the intended purpose can still be accomplished through the attainment of the task. If the mission includes no purpose, or if the purpose is ambiguous, then in the absence of communications, or in the event of casualties, what is the subordinate or his replacement to do? Even if communications work, checking takes time and ultimately could preclude taking advantage of fleeting opportunity.⁵⁸

It is my contention that the use of ambiguous language violates the spirit of decentralized command and control. Therefore, without a clearly stated task and purpose, the subordinate's exercise of initiative and freedom of action is limited by the boundaries of the task.

In conclusion, a mission order is an order that focuses on "what" not "how".⁵⁹ The mission order enables freedom of action by providing three elements: a clearly stated mission that includes a task and purpose; the resources to carry out the mission along with any constraints;⁶⁰ a statement of the commander's intent and the intent two levels up.⁶¹ Finally, the mission order follows the same format as the five paragraph field order and is best given face-to-face overlooking the terrain.⁶²

Perhaps one of the most confused and controversial doctrinal topics in the U.S. Army in recent years is the subject of commander's intent.⁶³ Specifically, the confusion evolves around four questions: what is commander's intent? What is its purpose? Is it the same as the concept of the operation? What specific items should the commander's intent address?

Doctrinal definitions of intent fall into two camps. One category views intent as the concept of operation and therefore includes a discussion of method, or how the operation will be conducted. This camp is supported by JCS Pub 1-02 that includes "intent" under the definition of the concept of operation. The concept is defined as, "a verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations."⁶⁴ FM 101-5-1 also supports the first camp by defining intent as the "commander's vision of the battle--how he expects to

fight and what he expects to accomplish."⁶⁵ These definitions lead one to conclude that intent is similar to the concept of the operation.

The other view is that intent is the purpose of the operation.⁶⁶ FM 100-5 states, "if subordinates are to exercise initiative. . . they must thoroughly understand the commander's intent."⁶⁷ FM 101-5 describes intent as, "a short paragraph covering the commander's vision of the battle and how the battlefield must look after mission accomplishment."⁶⁸ FM 7-72 indicates, "intent describes an end result desired at the end of the current mission. . . intent is usually the purpose of the operation and it represents a shared vision of the outcome. . . it is the bottom line."⁶⁹ Similarly, FM 7-10 defines intent as "the result the commander expects the unit to accomplish in a specific operation. . . at the lowest tactical level, intent is normally the purpose from the mission statement."⁷⁰ Student Text 100-9 also defines intent as the commander's vision of the operation, to include the purpose of the operation. However, the manual is suggestive of a third view as it further explains that intent describes how the commander visualizes achieving the end state with respect to the relationship between the force, the enemy and terrain.⁷¹ Finally, FM 71-123 (draft), defines intent as, "the commander's stated vision which defines the purpose of the operation."⁷²

Judging from the preponderance of the more recent doctrinal interpretations, and school products, the evidence indicates that commander's intent is neither the concept of the operation, nor the immediate task assigned to the unit. LTG Wayne Downing said it best when he explained, "commander's intent is not the mission - the specific, immediate task of the unit . . . it is not the concept of the operation . . . commander's intent is a well thought out one or two sentence statement of what the commanders wants to accomplish in the long term--the results he wants."⁷³

If the elements of the restated mission include task and purpose, some would argue that an intent statement that focuses on purpose is redundant. Although this view may hold some merit, there is a difference between an intent statement and the purpose in the restated mission.

There are two contracts. One is long-term. It is based on what we call the commander's intent. This is the commander's long-term vision of what he wants to have happen to the enemy, or the final result he wants...the subordinate needs to understand this two levels up...the mission is a shorter-term contract. It is a "slice" of the commander's intent, a slice small enough to be appropriate to the immediate situation of the subordinate unit.⁷⁴

To be sure, similarity might exist between the task and purpose of the restated mission and the purpose that a commander should address within an intent statement. However, one must recall that a task is assigned to achieve a certain effect relative to the terrain or

enemy. Ideally, a commander's assigned tasks will accomplish the mission, unless during execution it becomes apparent that the task no longer applies to the overall situation. Thus, it is both theoretically and actually possible to accomplish the task and fail the intent.⁷⁵ This is why a longer vision is necessary and why a mission order should contain the higher commander's intent.

As with the mission statement, the significance of intent is paramount to decentralized operations. FM 100-5 states: "if an unanticipated situation arises, committed maneuver unit commanders should understand the purpose of the operation well enough to act decisively, confident that they are doing what their superior commander would order done were he present."⁷⁶

Field Marshall William Slim believed that the writing of intent was the one thing the commander must contribute to formulating orders.

The wording of...orders I left to them [his staff] with the exception of one paragraph, the shortest, which I invariably drafted myself - the Intention. This gives or should give, exactly what the commander intends to achieve. It is the dominating expression of his will by which, throughout the operation every officer and soldier will be guided. It should, therefore, be worded by the commander himself.⁷⁷

So what specific item should commander's intent address? Clearly, intent must focus on the purpose of the operation. The purpose can be expressly described by stating, "the purpose of this operation is to ...", or it

can refer to the end state, or what we want to do to the enemy.⁷⁸ An example of intent written in this format is as follows:

Attack north to the river in the vicinity of Hill 71 in order to prevent the enemy from escaping to the east.⁷⁹

Thus, the key implementing tools of mission oriented command are as follows: a mission statement consisting of a clearly stated task and purpose coupled with a well-written statement of commander's intent. The restated mission specifies an effect on the enemy or terrain. It is stated in such a way that the subordinate is not forced to infer the intended purpose. The mission order further identifies resources, and contains a description of the commander's intent two levels above.

The purpose of intent is to enable subordinates to act with initiative and to exploit opportunity. When intent is worded correctly, it can stand alone as guidance in the absence of further orders. More importantly, subordinates will know when to violate their assigned task in order to achieve the overall purpose and end state directed by the commander. Therefore, control in mission oriented command is accomplished through assignment of the mission, identification of main effort and articulation of intent.

The fundamental pre-condition necessary to execute command and control through the use of mission orders and commander's intent is the establishment of a command

climate based on the four pillars of decentralization-- trust, training, moral courage and commander's intent. A command environment based on these four pillars will produce through careful cultivation and nurturing combat leaders with the capacity to operate in the uncertain, chaotic, fog of war.

IV. Analysis and Application of Tactical Doctrine

This section examines the tactical development and application of decentralized command and control doctrine. The initial focus is to determine how well the lower tactical doctrine contained in FM 71-1, FM 71-2, FM 71-123 AND ARTEP 71-2 complies with FM 100-5 regarding mission orders and commander's intent. Following this analysis, the paper examines the degree that active component infantry and armor task forces practiced the application of mission orders and commander's intent at the NTC during 1989-1990.

The criteria developed to conduct the analysis derives from FM 100-5 and reflects the framework of mission orders and commander's intent discussed previously. The analysis consisted of an evaluation of how well unit mission and commander's intent statements answered the following questions. Does the mission statement include a task and purpose? Is the task confused with operations? Does it contribute to freedom of action?⁹⁰ Does the intent statement clearly define

the purpose or end state? Does it avoid repeating the concept of operations? Does it contribute to actions without further orders?⁸¹

As stated earlier, lower level doctrine does not provide a consistent definition and format for mission orders.⁸² FM 71-2, The Tank and Mechanized Infantry Battalion Task Force is no exception. The manual briefly mentions mission orders and includes example orders with mission statements that fail to include the all-important task and purpose. For example, FM 71-2 provides the following mission statement: "TF 2-77 conducts a passage of line and attacks 130530A Sep 84 to seize HILL (NB251369 and HILL 301 (NB296384); continues the attack to the east on order."⁸³ In this case, "attacks" is the operation, "seize" is the task, but there is no stated purpose.

FM 101-5-1, Operational Terms and Symbols, fails to adequately provide a precise description of important terminology that comprises the essence of a mission statement. A study conducted by Major Robert Tezza revealed that FM 101-5-1 listed thirty "tactical" tasks many of which lacked precise definitions and contained similarities.⁸⁴ Tezza's study also revealed that only three of the tasks (feint, follow and support, and screen) have an associated graphical symbol.⁸⁵

ARTEP 71-2-MTP, The Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force, is

designed to, "provide active and reserve commanders with a descriptive, mission-oriented training program to train the battalion task force to perform its critical wartime missions/operations."⁸⁶ Although the MTP has utility, it fails to provide useful examples of mission orders. More importantly, the manual does not establish an adequate measurement for the formulation of mission orders, and falls short of adequately describing the standards for the accomplishment of tactical tasks using terms that are consistent with FM 101-5-1. For example, the MTP does not provide the standards to evaluate an assault with the task to secure, clear, or seize an objective.⁸⁷ In terms of the "defend" mission, the MTP fails to provide standards for tasks such as block, or contain.⁸⁸

In 1989, Major Robert Tezza evaluated the quality and degree of how instructors taught mission orders at the infantry and armor advance courses. His study indicated that, "USAIS instruction is in complete harmony with the Army's current C2 doctrine. . . but USAARMS instruction, . . . does not fully support implementation of mission orders."⁸⁹

Tezza's conclusions reflected the difference between branch schools on the construction of mission statements. "USAIS stressed using tactical tasks coupled with purposes. . . USAARMS teaches OAC students to construct mission statements using types of operations and control measures as tasks and tactical tasks as purposes."⁹⁰

This analysis points out the inconsistent and imprecise doctrine that affects the use of mission orders. The analysis also raises doubt as to the consistency and effectiveness of instruction at the armor officer advance course.

However, despite the inconsistencies, perhaps the majority of the advance course graduates understand the doctrine concerning mission orders. The task was taken up by Major John Johnson who, in 1990 conducted a survey of 402 officers to determine how well army officers understood mission orders. The survey population consisted of students attending CGSC and CAS3, officers assigned to the 3rd Armored Division, and observer-controllers from the National Training Center. Major Johnson was interested primarily in two principal questions concerning mission orders. Do US Army officers know the characteristics of mission orders as expressed in U.S. Army doctrine? Do U.S. Army leaders understand and practice the use of mission orders?

In regards to the first question, Johnson's findings indicated that only 20% of those surveyed were able to correctly identify all the characteristics of mission orders.⁹¹ A total of 102 officers did not think the doctrine was primarily decentralized in nature and that it stressed independent action by subordinates.⁹² More importantly, 103 officers did not recognize the responsibility to change their missions when the

situation required it and direction from the commander was unattainable.⁹³

In response to the second question, Johnson found that the perception of the majority was that they practiced mission orders.⁹⁴ However, Johnson concluded this was largely erroneous because most officers could not identify the characteristics of mission orders, and less than a majority indicated they used mission orders for everyday garrison operations.⁹⁵

In order to determine the extent that infantry and armor units practice the application of mission orders, I collected and evaluated portions of 323 operations orders written by all active component Blue Force units that trained at the NTC during 1989 and 1990.⁹⁶ Because the mission statement is a critical part of the mission order, my primary focus for analysis was the actual mission statement that commanders issued to their subordinates.

To conduct the analysis, I applied the criteria discussed previously. In each case, I made a determination if the commander assigned a task that was clearly stated and articulated an unambiguous purpose. Even if operations were confused with tasks, I counted the mission statement as valid unless the task contained no purpose. In accordance with FM 100-5 and FM 71-2, I then determined if the mission statement enabled the subordinate freedom of action. In short, as FM 71-2

requires, I assessed if the mission statement could stand alone.⁹⁷ I also determined if a change in the situation occurred, would the expressed purpose provide enough direction for the subordinate to act.

Examples of mission statements that I rejected are provided below.

Task Force AA attacks at 120830 Oct along axis Jane to destroy the enemy reserve, vicinity OBJ Jack.

Task Force FF, attacks 270500 Feb to seize OBJ 10, 11, and 12.

Task Force BB conducts a movement to contact at 010700 Feb to seize intermediate OBJ Yeast and OBJ Yale; continue attack to seize OBJ Yellow or OBJ Yankee; continue attack to OBJ Yoda.

Examples of mission statements that I accepted are also provided below.

Task Force BB attacks at 050600 Feb to seize objectives in the vicinity of NK 1540 to force commitment of HH MRR reserve and to prevent their destruction of the division's main effort.

Task Force DD defends in sector NLT 020130 to destroy the attacking MRR in order to prevent any enemy penetrations of PL Nevada and to prevent the bypass or envelopment of the 4th brigade to the south.

Task Force DD conducts a hasty attack at 010530 Mar to seize OBJ Puma vic NK 583160 to disrupt the enemy's prep for offensive operations and to protect the north flank of the division main attack.

A summary of my findings for mechanized task forces is as follows. Mechanized infantry task forces issued a total of 80 mission statements in 1989. Twenty one (21)

or 26% of these mission statements met the criteria while (59) or 74% did not. In 1990, mechanized task forces issued (77) mission statements with (22) or 28% meeting the criteria while (55) or 71% did not. The mechanized task force total for the two years was (43) of (157). Overall, 27% of the mission statements met the criteria.

The following is a summary of my findings for armor task forces. In 1989, a total of (79) mission statements were issued. Only (10) or 12.6% of these mission statements met the criteria while (69) did not. In 1990, armor task forces issued (87) mission statements with (18) or 20.6% meeting the criteria while (69) or 79% did not. Armor task force totals for the two years was (28) of (166). Overall, 16.8% of the mission statements met the criteria.

Most mission statements that did not meet the criteria failed to describe a purpose in terms of an effect on the enemy or terrain. Furthermore, several mission statements incorrectly described an operation such as a movement to contact to "seize" an objective. This is not only a doctrinally incorrect mission statement, it is also a doctrinally incorrect mission.

Although our doctrine advocates the use of mission orders, the overall analysis casts serious doubt as to whether mission orders are understood and practiced by a majority of officers and units.⁹⁸ Despite the emphasis placed on mission orders in FM 100-5, infantry and armor

tactical doctrine has barely complied even in spirit only. In short, the manuals echo similar language as FM 100-5 in describing the importance of mission orders; however, the doctrine falls short in providing the specifics of mission orders. For example, neither FM 71-2, or FM 71-123 (draft) offer suitable examples of mission orders. In the section that describes combat orders and command and control, FM 71-1 avoids any mention of mission orders.⁹⁹ The exceptions are the two Infantry School proponent manuals FM 7-72 and FM 7-10. Unfortunately, these will probably not be issued or read by armor officers.

Confusing terminology, inconsistent doctrinal sources and inconsistent officer advance course instruction also contribute to an overall lack of understanding regarding the use of mission orders by individual officers and units. Furthermore, as the analysis indicates, what is unclear to many is the precise terminology necessary to describe the desired effects on the enemy, friendly forces or terrain. As a result, observer/controllers at training centers note that units often fail to include sufficient information in orders and subordinates sent out to execute missions do not know the purpose and impact of the main effort.¹⁰⁰ The current brigade commander of the regimental OPFOR at the NTC, COL O'Neal, further observes that too many task force commanders are vague in terms of what they want,

they cannot visualize what product they expect and have no understanding of the meaning of definitional terms.¹⁰¹

Clearly, if the army is to make progress in the endeavor to apply mission orders, FM 101-5-1 must define and publish terminology that will consistently apply to tactical situations. The ARTEP 71-2 MTP should reflect measureable standards that are consistent with the terms described in FM 101-5-1. Branch-related schools that are responsible for producing doctrine must maintain consistency regarding content and instruction.

As previously stated, most of the appropriate infantry and armor school doctrine consistently define commander's intent in terms of end state and purpose. Furthermore, FM 71-2 and FM 71-123 (draft) are in agreement with FM 100-5 in that the purpose of commander's intent is to contribute to subordinates taking initiative and acting in the absence of orders and to effect swift, coordinated action as a unit.¹⁰² Unfortunately, neither FM 71-2 or FM 71-123 (draft) support their doctrinal statements with illustrative examples of intent that meet their own criteria.¹⁰³

As with mission orders, ARTEP 71-2 MTP superficially references commander's intent, but fails to provide specific standards as to what items intent should address.¹⁰⁴ Furthermore, the MTP does not provide standards to assess the exercise of initiative, acting in

the absence of orders, or to determine whether the commander's intent provided unity of effort.

Using the operations orders produced by units training at the NTC during 1989 and 1990, I evaluated the degree that task forces used commander's intent to exercise command and control.¹⁰⁵ To conduct the analysis, I applied the criteria discussed previously. In each case, I made a determination if the intent statement contributed to action in the absence of orders or communications.

Examples of intent statements that I rejected are provided below.

I intend to use the scouts to screen an advance guard forward to enable us to move swiftly along the axis to seize OBJs 31 and 32, and be prepared to continue the attack on order.

The task force commander wants to refit, refuel, rearm and conduct PCIs in the TAA to prepare for a deliberate attack.

In contrast, the following examples were acceptable.

Our attack is critical to the success of the brigade to our flank. I want to destroy all enemy in our zone depriving him the ability to shift forces from our sector. Seizure of the west side of the Leach Lake is key to our security and ability to interdict forces in the valley. We will be successful if we cause the enemy to commit his counterattack forces in our sector.

The reason we are striking this objective is to fix forces located in the vicinity of OBJ Bolt and support Task Force KK attacking on OBJ Cat. The brigade has to have OBJ Bolt secured in order to continue the assault on OBJ Cat. The objective must be taken to prevent enemy reserves from getting into the fight.

A summary of my findings is as follows. Out of a total of (84) intent statements published by armor and mechanized task force commanders, (16) or 19% met the criteria. The most frequent errors were that the intent statement repeated information normally contained in the concept of the operation, consisted of general guidance, or described contingency plans.

I further evaluated the application of commander's intent from the results of a survey of Desert Storm participants conducted by the Army Research Institute at Ft. Leavenworth. One of the questions the survey asked was, "what was the usefulness and application of higher commander's intent in your planning, preparation and execution?"¹⁰⁶

Interestingly, the response from the majority of the infantry and armor task force and company team commanders was overwhelmingly positive.¹⁰⁷ Some of the participants responses are provided below.

Col, IN BDE CDR: Commander's intent is the single most important aspect of the OPORD/FRAGO. At CMTC, NTC and in combat, when things get confused, disorganized and comms fail, all leaders know what to do and what the first result should be.

LTC, TF CDR: Specified clearly the task and purpose of the operation, clarified concept in reasonable terms and stated the end result.

LTC, AR TF CDR: It was critical. We often lost commo with division and had to continue mission on commander's intent.

CPT, AR CO CDR: The higher commander's intent was extremely important...without the stated

intent, we would have had no clear focus on the end state we were to achieve.

However, several responses indicated how meaningless commander's intent is if it merely repeats general guidance or rehashes the scheme of maneuver. For example, consider the following one company commander's remarks:

Commander's intent at task force level was too long and complicated...often it was an explanation of the scheme of maneuver or doctrinal sayings.

Although the enthusiasm displayed by the respondents regarding commander's intent is encouraging, one must be cautious in interpreting the data for two reasons. First, because the survey question did not include a doctrinal definition of intent, we are unable to assess exactly what the respondents considered commander's intent to be. Second, the infantry and armor respondents constitute a small sample from the overall population.¹⁰⁸

The evidence discussed above leads one to conclude that the doctrine produced at the respective infantry and armor schools regarding commander's intent is generally consistent with FM 100-5. However, none of the manuals contain good examples of intent statements that might provide a helpful template.

The major inconsistency is with the failure of FM 101-5-1 to agree with more current doctrinal definitions of intent. Another significant weakness is the disconnect between the doctrinal references and the tasks and standards measured in ARTEP 71-2 MTP.

The analysis of unit orders indicates that an application of commander's intent consistent with FM 100-5 and lower level doctrine by infantry and armor task forces is suspect. Overall, only 19% of the unit orders met the criteria. The lack of available intent statements alone reflects that many units routinely fail to include commander's intent in operations orders.¹⁰⁹

The results also corroborates NTC observer-controller observations and other studies that conclude that even when commander's intent is used, it is usually poorly articulated.¹¹⁰ Often, intent is used to address the same issues as the concept for the operation.¹¹¹ For example, one report cited:

Commander's intent is not understood. Rather than stating the purpose and impact of the main effort that the commander wishes to achieve..., intent is often used to insert additional mission requirements, coordinating instructions or subunit missions.¹¹²

The poor communication and dissemination of commander's intent impacts on the capacity of supporting artillery, engineer, intelligence collection and combat support efforts to support the scheme of maneuver.¹¹³ More significantly, observer-controllers note that:

attackers are assaulting objectives that have no relation to the operation and consequently die needlessly...defenders control terrain that has no relation to the operation and are therefore bypassed. When questioned about their operations, leaders consistently could not explain why they were conducting them.¹¹⁴

In summary, units that trained at the NTC from 1989-1990 applied the doctrine regarding commander's intent 19% of the time. This clearly affected execution and the capacity of the units to concentrate combat power within the potential of the battle operating systems.

V. Conclusions.

The overall results of this study indicate that during 1989-1990, infantry and armor units that trained at the National Training Center produced the type of mission orders and commander's intent required by Airland Battle doctrine 21% of the time. Furthermore, as Major Johnson's survey indicated, only 20% of a group of officers could pick out the characteristics of a mission order. A significant number did not recognize the doctrine's requirement to change the mission and act if the situation had changed and communication with the higher commander was lost.¹¹⁵ Unquestionably, the overall performance of units at NTC does not reflect an understanding of the primary implementing tools of decentralized command and control. These indicators lead to the conclusion that mission orders and commander's intent are not understood and not applied by the majority of officers in infantry and armor units.

Despite the favorable comments regarding commander's intent that surfaced from the ARI Desert Storm survey, one must question whether the Army's institutional

schools have failed in their mission to educate officers on the fundamental aspects of Airland Battle command and control doctrine. As discussed previously, an earlier study concluded that USAIS taught mission orders while the USAARMS did not.¹¹⁶ One must also question whether the proponent schools along with the Integrating center at Ft. Leavenworth are accomplishing their mission to write and publish effective doctrine.

FM 100-5 states that in order for doctrine to be useful, it must be uniformly known and understood.¹¹⁷ Our analysis of doctrine regarding mission orders and commander's intent indicates general inconsistency in terms of definition, example orders, format, and evaluation standards. These doctrinal shortcomings undoubtedly contribute to the use of imprecise terminology that result in ambiguous mission statements and poorly expressed commander's intent. Clearly, the two major manuals, FM 101-5 and particularly FM 101-5-1 fail to resolve the inconsistencies. The doctrine cannot be effectively implemented if it is inconsistent and fails to provide precise terms necessary to describe the desired effects relative to the enemy or terrain.

FM 100-5 defines synchronization "as the arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point"¹¹⁸. Despite the frequent use of detailed execution matrices, task forces at the Combat Training

Centers typically fail to synchronize combat power at the decisive point. Part of this inability to achieve synchronization relates to an ineffective use of mission orders and commander's intent. The issuance of an order that includes a purposeless mission statement, in combination with commander's intent that merely repeats general guidance, or spells out a rigid concept of the operation, is a recipe for disaster. Friction, danger, uncertainty and chance will always play havoc with carefully arranged plans. Strive as we might for certainty and precision through the use of technology and detailed orders, the battlefield will remain an uncertain, chaotic place that defies futile attempts to instill order. Complete synchronization will never occur unless the implementing order includes the primary task, purpose, and end state necessary for subordinate commanders and staff to exercise their initiative and to act in the absence of further guidance.

Finally, if the majority of infantry and armor officers do not understand and apply decentralized techniques of command and control, one must question the validity and effectiveness of unit leader training programs.

Given our conclusion that the doctrine is inconsistent in definition and performance standards, and that our schools and unit training programs do not produce officers with the conceptual understanding to

effectively exercise command and control through mission orders and commanders intent, has the transplant of decentralized command and control failed?¹¹⁹

This study examines in depth only one of the four major pillars that make up the decentralized command and control foundation--trust, training, mission orders and commander's intent and moral courage. Although not conclusive, several studies indicate disturbing flaws in the other pillars as well. For example, one study reflects the failure of army officers to demonstrate critical Airland Battle leadership characteristics such as delegation and initiative.¹²⁰ Trust of subordinates by the officers has not occurred historically and is questionable even today.¹²¹ Another study indicates that "units at NTC that used OPORDs indicating "what" must be done rather than "how" to do it usually failed the mission. . . subordinates who received detailed "how-to" orders were more successful."¹²² The study concluded that:

Our officers are conditioned to expect specific guidance...when this guidance is missing, subordinates may falter and be unsuccessful...unlike German officers who are programmed to expect maximum flexibility to exercise their initiative in accordance with the commander's intent, the US officer expects to receive "how to" orders.¹²³

VI Implications and Recommendations

One could argue that the major implication resulting from this study is that decentralized command and control

won't work in the U.S. Army. In short, if decentralized command and control were compared to a hospital, we would diagnose our patient as terminally ill. I submit it is far too early to make this dismal prognosis. In light of the German Auftragstaktik experience that evolved over a hundred years, a mere nine years is far too early to concede defeat.

Our historical and theoretical analysis of decentralized command and control illustrated how weapons development ended the era of close-order combat and imposed dispersion on the battlefield. Airland Battle doctrine recognizes the lethal, non-linear nature of the battlefield today and seeks to achieve success through forces that emphasize flexibility, speed, mission type orders, initiative among commanders at all levels and the spirit of the offense.¹²⁴ This requires the building of trust and training subordinates to have the moral courage to act with initiative within the framework of the commander's intent. Unless these pillars are firmly emplaced, the foundation will crash to the ground.

The following recommendations may serve to correct the current problem with the application of decentralized command and control techniques. First, our doctrinal language must be thoroughly revamped with precise terms and corresponding graphics. This is fundamentally critical simply because as BG Wass de Czege noted, "a precise terminology and language are absolutely necessary

for the accurate transmission of ideas, without a precise language, we can hardly have a science."¹²⁵ Second, the lower tactical command and control doctrine must be closely aligned with the conceptual underpinnings from FM 100-5. None of the lower level manuals should be contradictory in discussion or by example. Third, officers and junior NCOs must demonstrate their understanding of decentralized command and control through application at schools and while training in units. This can be effectively measured through closely aligned school curriculums and a revised ARTEP 71-1 and 71-2 MTP.

The implementation of these measures will take time and will require conceptual agreement as well as detailed coordination between branch schools and the integrating center. For all the right reasons, the U.S. Army has chosen a decentralized command and control system. To choose the alternative--a centralized command and control system would be to choose a system that defies the realities of the battlefield.

- ¹ Carell, Paul. Hitler Moves East 1941-1943, Translated by Ewald Osers, New York: Ballantine Books, 1963. All references to the battle contained in Part Two: Leningrad, 270-287.
- ² Carell, 276.
- ³ Carl von Clausewitz, On War, translated by Michael Howard and Peter Paret, Princeton: Princeton University Press, 1984, 104.
- ⁴ U.S. Army, Field Manual 100-5, Operations, (Washington: Department of the Army, May 1986), 15.
- ⁵ James Schneider, "The Theory of the Empty Battlefield," Rusi September, 1987. pp 9-16. See also John A. English, A Perspective on Infantry, Praeger Publishers, New York, 1981, 3.
- ⁶ Schneider, 14. See also, Paddy Griffith, Forward into Battle, Antony Bird Publications, Great Britain, 1981, 62. See also Martin Van Creveld, Technology and War, Collier Macmillan Publishers, London, The Free Press, New York, 1989, 265. He states, "perhaps the most important single contribution of military technology during the period of 1830 to the outbreak of World War II was the trend towards greater and greater firepower."
- ⁷ Charles Edward White, The Enlightened Soldier: Scharnhorst and the Militarische Gesellschaft in Berlin, 1801-1805., Doctoral Dissertation, Department of History, Duke University, 1986, 123.
- ⁸ John L. Silva, "Auftragstaktik, Its Origin and Development", Infantry, September-October 1989, 6-7.
- ⁹ White, 147.
- ¹⁰ Ibid., 147.
- ¹¹ Ibid., 195-209.

- 12 Ibid., 210. See also, Knut Czeslik, Ltc, "Auftragstaktik, Thoughts of a German Officer", Infantry, January-February 1991, 10. See also John A. English, A Perspective On Infantry, Praeger Publishers, New York, 1981, 95. See T.N. Depuy, A Genius For War: The German Army and General Staff, 1807-1945, Hero Books, Fairfax, Virginia, 1984, 307.
- 13 Clausewitz, On War, 101.
- 14 Ibid., 86. See also Helmut von Moltke, Moltke's Military Works, Vol. IV, "War Lessons", Part II," translated by Harry Bell, (Ft. Leavenworth: Army Service Schools, April 1915), 2. Moltke stated, "One thing must be certain...our own decision...in war everything is uncertain as soon as operations commence."
- 15 Ibid., 117, 102. See also Adolf Von Schell, Battle Leadership, Reprinted by the Marine Corps Association, Quantico, VA., 1982, 32, and 48-56.
- 16 Ibid., 102.
- 17 Martin Van Creveld, Command in War, Harvard University Press, Cambridge, Massachusetts, 1985, 268-269.
- 18 Ibid., 269.
- 19 Memorandum For Commander, CATA, dated 13 September 1990, from Chief, Division Doctrine Branch, Ft. Leavenworth, Kansas. Subject: Command and Control Focused Rotation Report, paragraph 2. The report states, "our data is supportive of the premise that the command and control system is ineffective in its support to a commander...the present command and control system routinely hamstring's our commander's use of initiative by not allowing him to capitalize on critical tactical and time windows of opportunity."
- 20 Richard E. Simpkin, Race to the Swift: Thoughts on Twenty-First Century Warfare, Brassey's Defence Publishers, London, England, 1985, 205.
- 21 Clausewitz, On War, 229.
- 22 Van Creveld, Command in War, 265

- 23 Michael J. Harwood, Auftragstaktik: We Can't Get There From Here, School of Advanced Military Studies, U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas, 1989/1990, 7.
- 24 Van Creveld, Command in War, 269.
- 25 John T. Nelson, Auftragstaktik: A Case for Decentralized Combat Leadership, School of Advanced Military Studies, Command and General Staff College, Ft. Leavenworth, Kansas, 1986, 15.
- 26 Ibid., 169.
- 27 Simpkin, 230. The building of trust between the superior and subordinate is a fundamental pre-condition to decentralized operations and cannot be over-emphasized. See also, Tom Peters, Thriving On Chaos: Handbook for a Management Revolution, Harper and Row, New York, 1987, 545-549. See also Robert Levering, A Great Place To Work, Avon Books, New York, New York, 1988, pp 31, 45-46, 186, 264. See also, Richard F. Timmons, "Lessons From the Past For NATO", Parameters, 14 (Autumn 1984) 5. He states, "The first pre-requisite is that trust and confidence must exist throughout the ranks all the way down to the private soldier."
- 28 German Army, Truppenfuhrung, trans. of Part I prepared by the Command and General Staff School Press, 1936, 3-5.
- 29 Silva, 6. See also, Faris R. Kirkland, "The Gap Between Leadership Policy and Practice: A Historical Perspective", Parameters, September, 1990, 59.
- 30 Walter von Lossow "Mission-Type Tactics versus Order-Type Tactics", Military Review, June, 1977, 87-91.
- 31 T.N. Depuy, A Genius For War: The German Army and General Staff, 1807-1945, Hero Books, Fairfax, Virginia, 1984, 306. See F.W. von Mellenthin, "Armored Warfare in WW II (translation of a conference), Columbus Laboratories: 10 May, 1979, 8. The former Wehrmacht Major General, F.W. von Mellenthin defined "character" as the capacity to make independent decisions.

32 Simpkin, 231.

33 Czeslik, "Auftragstaktik: Thoughts of a German Officer", 11.

34 John L. Romjue, From Active Defense to Airland Battle: The Development of Army Doctrine 1973-1982, TRADOC Historical Monograph Series (Fort Monroe: United States Army Training and Doctrine Command, 1984), 58-59. This was not the first time we borrowed leadership concepts from the Germans and incorporated them into our doctrine. See Martin Van Creveld, Fighting Power: German and U.S. Army Performance 1939-1945, Greenwood Press, Westport, Connecticut, 1982, 32.

35 John J. Vermillion, Tactical Implications of the Adoption of Auftragstaktik for Command and Control on the Airland Battlefield, School of Advanced Military Studies, United States Army Command and General Staff College, 1985, 13. For an example of this tendency see Paul Herbert, Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations, Leavenworth Papers number 16, 1988, 16. See also, Michael J. Harwood, Auftragstaktik: We Can't Get There From Here, 22-23. David R. Palmer Summons of the Trumpet: U.S. - Vietnam in Perspective, Presidio Press, Novato Ca, 1978, 143-146 wrote, "The company commander on the ground attempting to fight his battle could usually observe orbiting in tiers above him his battalion commander, brigade commander, assistant division commander, division commander, and even his field force commander...with all that advice from the sky, it is easy to imagine how much individual initiative and control the company commander himself could exert on the ground."

36 Vermillion, 2.

37 Van Creveld, Command in War, 236-241, 244, 255. See also Terry M. Peck, Leadership - A Doctrine Lost and Found, School of Advanced Military Studies, United States Army Command and General Staff College, 1989, 13, 27. See also Daniel P. Bolger, "Command or Control", Military Review, July, 1990, 69-79.

38 James H. Willbanks, Airland Battle Tactical Command and Control: Reducing the Need to Communicate Electronically in the C2 of Combat Operations at the Tactical Level, MMAS Thesis, United States Army Command and General Staff College, Ft. Leavenworth, Ks. 1984, 3. The author states, "Our fascination with technology in the area of C2 presents three serious problems...there comes the tendency to overextend the capability and require more information than we need or can effectively use...it may lead to information demands that result in micro-management...it blinds us to the other parts of the C2 process."

39 CATA, Command and Control Focused Rotation Report, 3. These conclusions are based on observations of 17 division and three corps BCTP warfighter exercises. The report states, "we can conclude that all units have experienced similar breakdowns with their command and control system." See also, Ltc Jack Burkett, "Command and Control: The Key to Winning", Military Review, July, 1990, 60-68. Burkett estimates heavy divisions routinely deploy with approximately 300 personnel to support the division main command post alone.

40 Ibid, 3. For an in-depth historical analysis of the pitfalls of this kind of command and control system, see Robert Allan Doughty, The Breaking Point: Sedan and the Fall of France, 1940, Archon Books, Hamden, Connecticut 1990

41 J.F.C. Fuller, Generalship: Its Diseases and Their Cure, Military Service Publishing Company, Harrisburg, Pa. 1936, 66.

42 Hanson S. Baldwin, Tiger Jack, Ft. Collins, Colorado: The Old Army Press, 1979, 146, 159. See also John Nelson, 21-22.

43 FM 100-5, Operations (1986), 21.

44 Nelson, 17.

45 Joint Pub 1-02, Department of Defense Dictionary of Military and Associated Terms, Washington, D.C. 1989, 236.

46 U.S. Army, FM 101-5 Staff Organization and Operations, (Washington: Department of the Army, 1984), 7-1, 7-2, and FM 101-5-1 Operational Terms and Symbols, (Washington: Department of the Army 1985).

47 Student Text, 100-9, Techniques and Procedures For Tactical Decisionmaking, U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas.

48 A survey of the following manuals was conducted: FM 71-2, The Tank and Mechanized Battalion Task Force, (Washington, D.C.: Headquarters, Department of the Army, Sept, 1988), FM 71-123, (Final Draft) Tactics and Techniques For Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company Teams, U.S. Army Armor School, Fort Knox, Kentucky, June 1991.

49 U.S. Army, FM 7-72, Light Infantry Battalion, (Washington: Department of the Army 1987), 2-4.

50 Ibid., 2-4.

51 U.S. Army, FM 7-10, The Infantry Rifle Company, (Washington: Department of the Army 1990) 2-5, Key principles are: expect uncertainty, reduce leader intervention, increase subordinate planning time, allow maximum freedom of action and forward command.

52 Ibid., 2-6.

53 Ibid., 2-18; FM 7-72, 2-20.

54 FM 101-5, 5-8, see also FM 101-5-1, 1-47.

55 For an in-depth analysis of the confusing, contradictive terms used in FM 101-5, and FM 101-5-1, see William F. Crain, The Mission: The Dilemma of Specified Task and Implied Commander's Intent, School of Advanced Military Studies, United States Army Command and General Staff College, Ft. Leavenworth, Kansas, 1989.

56 Extract from the United States Infantry School, 1988 Infantry Conference, Combined Arms Training and Doctrine Division, Information Paper dated 10 March, 1988, Subject: Mission Orders and Commander's Intent. See also U.S. Army, FM 25-100, Training the Force, (Washington: Department of the Army 1988) glossary, 7.

- 57 FM 7-10, 2-18.
- 58 John R. Boyd, "Patterns of Conflict" (Unpublished paper, 25 May 1978, in possession of author). See also William S. Lind, The Maneuver Warfare Handbook, Westview Press, Boulder, Colorado, 1985, chapter one.
- 59 General George S. Patton, War As I Knew It, Houghton Mifflin Company, Boston, Massachusetts, 1947, 338.
- 60 Simpkin, 231.
- 61 Lind, 13.
- 62 U.S. Army FM 100-5, Operations, (Washington: Department of the Army 1982), 2-7. Mission orders must cover three points: clearly state the commander's objective, what he wants done and why he wants it done...establish limits or controls...delineate the available resources and support from outside sources."
- 63 For a variety of viewpoints see, Russell W. Glenn, "The Commander's Intent: Keep It Short", Edward J. Filiberti, "Command, Control and the Commander's Intent", David A. Fastabend, "The Application of Commander's Intent", Military Review, August, 1987, 50-60.
- 64 JCS Pub 1-02, 84.
- 65 FM 101-5-1, 1-17.
- 66 FM 100-5, 4, 15, 97.
- 67 FM 100-5, 15.
- 68 FM 101-5, C1, 1 June 1986, 27.
- 69 FM 7-72, 2-4-2-5.
- 70 FM 7-10 2-5.
- 71 ST 100-9, 5-4.
- 72 FM 71-123 (draft), 1-3. See also FM 71-2, 2-18.
- 73 Wayne A. Downing, "Training to Fight", Military Review, May, 1986, 18-2.

- 74 Maneuver Warfare Handbook, 13.
- 75 Edward Filiberti, 55.
- 76 FM 100-5, 22.
- 77 Field Marshal William Slim, Defeat Into Victory, Cassell and Company, London, England, 1956, 210-211.
- 78 Downing, 21.
- 79 Downing, 21.
- 80 FM 100-5, 15.
- 81 Ibid., 22.
- 82 U.S. Army, The Tank and Mechanized Infantry Battalion Task Force, (Washington: Department of the Army, 1988). This manual, co-authored by the Infantry and Armor Schools barely mentions mission orders.
- 83 Ibid., B-9. See also B22.
- 84 Robert J. Tezza, Teaching Mission Orders In Officer Advance Course Instruction: Reality or Myth?, MMAS Thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas, 1989, 68-75.
- 85 Ibid., 69.
- 86 ARTEP 71-2 MTP, The Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force, (Washington, D.C.: Department of the Army, 1988), i.i.
- 87 Ibid, 5-27-5-29.
- 88 Ibid., 5-33-5-35.
- 89 Tezza, 129.
- 90 Ibid., 129.
- 91 John D. Johnson, Mission Orders in the United States Army: Is the Doctrine Effective?, MMAS thesis, Command and General Staff College, Ft. Leavenworth, Kansas, 93.

- 92 Ibid., 61.
- 93 Ibid., 62.
- 94 Ibid., 94.
- 95 Ibid., 94.
- 96 Headquarters, National Training Center, Unit Operations Orders, a selection of documents from all rotations occurring in 1989 and 1990. Provided by the Center For Army Lessons Learned, Ft. Leavenworth, Kansas. All information regarding the application of mission orders comes from these sources. Hereafter referred to as CALL Lessons Learned, NTC.
- 97 FM 71-2, B-9.
- 98 Major John Johnson reached a similar conclusion in his study, see 90-94.
- 99 U.S. Army, FM 71-1, Tank and Mechanized Infantry Company Team, (Washington, D.C.: Headquarters, Department of the Army 1988). Appendix A., Chapter 2.
- 100 Center For Army Lessons Learned, observation report #5077 and #3008.
- 101 COL Patrick O'Neal, USA, from an interview conducted by the author, 23 Aug, 1991.
- 102 FM 71-2, B-9, FM 71-123 (draft), 1-3.
- 103 FM 71-2, B-23. See also FM 71-123 (draft), 1-12, 1-13.
- 104 ARTEP 71-2 MTP, 5-88 to 5-89, 5-94 to 5-95.
- 105 CALL, Lessons Learned, NTC.
- 106 Survey distributed by Army Research Institute, Ft. Leavenworth, Kansas, 1991.
- 107 The ARI data available to me indicates 75/80 infantry and armor Captains, Ltcs and Cols responded in a favorable manner to the survey question.
- 108 The ARI total to date was 80.

- 109 This was not unusual, see Center For Army Lessons Learned, Report #4590, dated Feb, 1989.
- 110 Crain, 21.
- 111 CALL, Observation Report #2195 dated Aug 1986, CALL Observation Report #2187, dated Aug, 1986. CALL Observation Report #5625 dated Feb, 1990.
- 112 CALL, Observation Report #5077.
- 113 CALL Observation Report #4125, dated Dec, 1989. CALL Observation Report, #5159, dated Mar, 1989. CALL Observation Report, #3854, dated Dec, 1988, CALL Observation Report #4278, #4286, #4318, #4404 dated Jan, 1989.
- 114 CALL Observation Report #3372, dated April 1988.
- 115 Major John Johnson, 99.
- 116 U.S. Army Training Board, "United States Army Training Board Discussion Paper 1-86: Auftragstaktik in the U.S. Army", Ft. Monro, Virginia, 12 June 1986, 3.
- 117 FM 100-5, 6.
- 118 FM 100-5, 17.
- 119 The accepted practice as Maj Dan Bolger suggests is detailed orders and centralized control. See, "Command or Control", 69-79.
- 120 Army Research Institute, draft study entitled: "NTC Leadership Lessons Learned", Major Sam Endicott, Center For Army Leadership and Earl Pence, Army Research Institute, 1985.
- 121 U.S. Army Science Board, "Close Combat (Heavy) Training Strategy for the 1990's", 11 March 1989. The study concluded that many NCOs perceive their commanders as being unwilling to trust them with the authority and responsibility for training their subordinates, III-7. See also, Faris R. Kirkland, "Combat Leadership Styles: Empowerment versus Authoritarianism," Parameters, December 1990, 61-72.

122 U.S. Army Training Board, "United States Army Training Board Discussion Paper 1-86: Auftragstaktik in the U.S Army." Ft. Monroe, Virginia, 12 June 1986.

123 Ibid., 3.

124 FM 100-5, i.

125 EG Huba Wass de Czege, "How to Change an Army", Military Review, Nov 1984, 41.

BIBLIOGRAPHY

BOOKS

Baldwin, Hanson W. Tiger Jack. Ft Collins, Colorado: The Old Army Press, 1979.

Carell, Paul. Scorched Earth: The Russian - German War, 1943-1944. Translated by Ewald Osers. New York: Ballantine Books, 1966.

_____. Hitler Moves East 1941-1943. Translated by Ewald Osers, New York, Ballantine Books, 1964.

Clausewitz, Carl von. On War. Edited and translated by Michael Howard and Peter Paret. Princeton, New Jersey: Princeton University Press, 1976.

Collins, Arthur S. Common Sense Training. Navato: Presidio Press, 1978.

Cooper, Matthew. The German Army 1933-1945, Stein and Day, New York, 1978

Crevel, Martin Van. Command in War. Cambridge, Massachusetts and London, England: Harvard University Press, 1985.

_____. Fighting Power: German Military Performance, 1914-45. Fairfax, Virginia: Hero Books, 1984.

_____. Technology and War, Collier Macmillan Publishers, London, 1989.

Depuy, Trevor N. A Genius for War: The German Army and General Staff 1807-1945. Englewood Cliffs, New Jersey: Prentice Hall, 1978.

Doughty, Robert A. The Breaking Point, Sedan and the Fall of France, 1940. Archon Books, Hamden Press: Connecticut. 1990.

Du Picq, Ardant Col, French Army. Battle Studies: Ancient and Modern Battle, Translated by Col J.N. Greely, and Maj R.C. Cotton, Harrisburg, Pennsylvania, 1946.

English, John A. A Perspective on Infantry. Praeger Publishers, New York 1981.

Fuller, J.F.C. Armored Warfare. London, Great Britain: Wyre, Spottiswoode LTD., November 1943.

_____ The Foundations of the Science of War. London, Great Britain: Hutchinson and Company, LTD., 1926.

_____ Generalship Its Diseases and Their Cure. Harrisburg, PA: Military Service Publishing Co., March 1936.

Griffith, Paddy. Forward Into Battle. New York: Hippocrene Books, 1981.

Levering, Robert. A Great Place to Work. Avon Books, New York, New York, 1988.

Lind, William S. The Maneuver Warfare Handbook, Westview Press, Boulder, Colorado, 1985.

Mathews, Lloyd J. and Brown, Dale E. editors, The Challenge of Military Leadership. Pergamon-Brassey New York, 1989.

Mellenthin, F.W. von. Panzer Battles: A study of the Employment of Armor in the Second World War. Edited by H. Betzler, Translated L.C.F. Turner, Norman Oklahoma: University of Oklahoma Press, 1956.

Moltke, Helmut Von. Moltke's Military Works Vol IV, translated by Harry Bell, (Ft Leavenworth: Army Service Schools) April, 1915.

Palmer, Bruce. The 25 Year War - America's Military Role in Vietnam. The University of Kentucky Press, 1984.

Palmer, David R. Summons of the Trumpet: U.S. - Vietnam in Perspective, Presidio Press, Novato, California 1978.

Patton, George S. War As I Knew It. Houghton-Mifflin Co., 1947.

Peters, Tom J. and Nancy K. Austin. A Passion for Excellence: The Leadership Differences. New York, New York: Warner Books, 1986.

_____ Thriving on Chaos. Harper and Row, New York, New York, 1987.

Pogue, Forest C. George C. Marshall: Education of a General. 1880-1939. New York: Viking Press, 1963.

Rumjue, John L. From Active Defense to Airland Battle: The Development of Army Doctrine, 1973-1982. Washington, D.C.: Government Printing Office, 1984.

Rosinski, Herbert. The German Army. Edited by Gordon Craig, London: Pall Mall Press, 1966

Schell, Adolph. Battle Leadership. The Benning Herald, Fort Benning, Georgia, 1933.

Simpkin, Richard E. Race to the Swift: Thoughts on Twenty First Century Warfare. New York: Brasey's Defence Publishers, 1986.

_____. Human Factors in Mechanized Warfare. New York: Brasey's Defence Publishers, 1983.

Slim, William. Defeat into Victory, Cassell and Company, London, England, 1956.

Von Manstein, Erich. Lost Victories. Translated by Anthony G. Powell and reprinted at Novato, California: Presidio Press, 1985.

Monographs

Burton, Michael A. "Command and Control: Is the U.S. Army's Current Problem With Decentralized Command and Control a Function of Doctrine or Training?" Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1986.

Cowan, David M. "Auftragstaktik: How Low Can You Go?" Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1986.

Crain, William F. "The Mission: The Dilemma of Specified Tasks and Implied Commander's Intent" Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1989/90.

Cranz, LTC Donald. "Sigismund von Schlichting and the Operational Level of War" Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1989.

Harwood, Major Michael J. " Auftragstaktik: We Can't Get There From Here" Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1989.

Johnson, John D. "Mission Orders in the United States Army: Is the Doctrine Effective?" MMAS Thesis, Command and General Staff College, Ft. Leavenworth, Kansas, 1990.

Herbert, Paul H. "Deciding What is Done: General William E. DePuy and the 1976 A 100-5, Operations," Leavenworth Paper at Studies Institute, Ft. Leavenworth, Kansas.

Greer, Major James K. "The Shortest Way Home: Risk and the Airland Battle," Ft. Leavenworth: School of Advanced Military Studies, 1989.

Nelson, Major John T. "Where to Go from Here? Considerations for the Formal Adoption of Auftragstaktik by the U.S. Army," Ft. Leavenworth: School of Advanced Military Studies, 1986.

Peck, Terry M. "Leadership - A Doctrine Lost and Found," Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1989.

Romjue, John L. "From Active Defense to Airland Battle: The Development of Army Doctrine 1973-1982," TRADOC Historical Monograph Series, Historical Office, Fort Monroe, Va., June 1984.

Runals, Stephen E. "Command and Control: Does Current U.S. Army Tactical Command and Control Doctrine Meet the Requirement for Today's High Intensity Battlefield?" Monograph, Ft. Leavenworth: School of Advanced Military Studies, 1985.

Tezza, Robert J. "Teaching Mission Orders in Officer Advance Course Instruction: Reality or Myth?" MMAS Thesis, Command and General Staff College, Ft. Leavenworth, Kansas, 1989.

Vermillion, Major John M. "Tactical Implications of the Adoption of Auftragstaktik For Command and Control on the Airland Battlefield," Ft. Leavenworth: School of Advanced Military Studies, 1985.

White, Charles E. "The Enlightened Soldier: Scharnhorst and the Militarische Gesellschaft in Berlin, 1801-1805," Doctoral Dissertation, Department of History, Duke University, 1986.

Willbank, James H. "Airland Battle Tactical Command and Control: Reducing the Need to Communicate Electronically in the C2 of Combat Operations at the Tactical Level,"

MMAS Thesis, Ft. Leavenworth: Command and General Staff College. 1984.

Articles

Bates, Jared L. and Jimmie B. Quinn, "T2S=V," Military Review, Ft. Leavenworth, Kansas: Command and General Staff College, (June 1977), 24-29.

Bolger, Daniel P. "Command or Control?" Military Review, (July 1990), 69-79.

Burkett, Jack. "Command and Control: The Key to Winning," Military Review, (July 1990) 60-68.

Czeslik, Knut. "Auftragstaktik, Thoughts of a German Officer," Infantry, (January-February 1991) 10-11.

Depuy, William E. "Concepts of Operation: The Heart of Command, The Tool of Doctrine," Army Magazine, Arlington, Virginia, (August 1988), 26-40.

Downing, Wayne A. "Training to Fight," Military Review, (May 1986), 18-26.

Echevarria, Antulio J. "Auftragstaktik: In Its Proper Perspective," Military Review, (October 1986), 50-56.

Fastabend, David A. "The Application of the Commander's Intent," Military Review, (August 1987), 60-68.

Filiberti, Edward J. "Command, Control and the Commander's Intent," Military Review, Ft. Leavenworth, Kansas, (August 1987), 54-59.

Glen, Russell W. "The Commander's Intent: Keep It Short," Military Review, Ft. Leavenworth, Kansas, (August 1987), 50-54.

Hahn, Daniel A. "Leadership: The Heart of C2," Military Review, (November 1985), 48-51.

Kirkland, Faris R. "The Gap Between Leadership Policy and Practice: A Historical Perspective," Parameters, (September 1990), 50-62.

_____. "Combat Leadership Styles: Empowerment versus Authoritarianism," Parameters, (December 1990), 61-72.

Schneider, James J. "The Theory of the Empty Battlefield," RUSI, (September 1987), 9-16.

Schmidt, Robert L. "A Doctrine For Command," Military Review, (November 1985), 45-47.

Silva, John L. "Auftragstaktik, Its Origin and Development," Infantry, (September-October 1989), 6-7.

Timmons, Richard F. "Lessons From the Past For NATO," Parameters, (Autumn 1984), 5.

von Lossow, Walter. "Mission-Type Tactics Versus Order-Type Tactics," Military Review, (June 1977), 87-91.

Wass de Czege, Huba. "How to Change an Army," Military Review, (November 1984), 32-49.

GOVERNMENT DOCUMENTS

ARTEP 71-2 MTP, The Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force. Washington, DC: Headquarters, Department of the Army, September 1988.

FM 22-103, Leadership and Command at Senior Levels. Washington, D.C.: Headquarters, Department of the Army, 1987.

FM 25-100, Training the Force. Washington, D.C.: Headquarters, Department of the Army, 1987.

FM 7-10, The Infantry Rifle Company. Washington, D.C.: Headquarters, Department of the Army, 1990.

F, 7-72, The Light Infantry Battalion. Washington, D.C.: Headquarters, Department of the Army, 1987.

FM 71-1, The Tank and Mechanized Infantry Company Team. Washington, D.C.: Headquarters, Department of the Army, 1988.

FM 71-2J, The Tank and Mechanized Infantry Battalion Task Force. Washington, D.C.: Headquarters, Department of the Army, 1988.

FM 71-123, Tactics and Techniques For Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company Teams, (final draft) U.S. Armor School, Fort Knox, Kentucky, June 1991.

FM 100-5, Operations. Washington, D.C.: Headquarters, Department of the Army, 1982.

FM 100-5, Operations. Washington, D.C.: Headquarters, Department of the Army, 1986.

FM 101-5, Staff Organization and Operations. Washington, D.C.: Headquarters, Department of the Army, 1984.

FM 101-5, Staff Organization and Operations, Change No. 1 (draft) Washington, D.C.: Headquarters, Department of the Army, June 1986.

FM 101-5-1, Operational Terms and Symbols. Washington, D.C.: Headquarters, Department of the Army, 1985

German Army. Truppenfuhrung. 1933. Translated at the U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas: Command and General Staff College Press, 1936.

JCS Pub 1-02, Department of the Defense Dictionary of Military and Associated Terms. Washington, D.C. 1989.

ST 100-9, Techniques and Procedures For Tactical Decisionmaking, U.S. Army Command and General Staff College, Ft. Leavenworth, Kansas 1991.

UNPUBLISHED DOCUMENTS

Army Research Institute, "Desert Storm Survey", distributed by ARI. In possession of author, Ft. Leavenworth, Kansas 1991.

Boyd, John R. "Patterns of Conflict". In possession of author, 25 May 1978.

Center For Army Lessons Learned, Ft. Leavenworth, Kansas. Observation Reports: #2187, #2195, #3008, #3372, #3854, #4125, #4278, #4286, #4318, #4404, #4590, #5077, #5159, #5625.

Chief, Division Doctrine Branch, Command and General Staff College, Ft. Leavenworth, Kansas. "Command and Control Focused Rotation Report". INFORMATION PAPER in possession of author, 13 September 1990.

Chief, Tactics Division, CATD, USAIS. "Mission Orders and Commander's Intent", INFORMATION PAPER in possession of author, 10 March 1988.

Dubik, James M. "Creating an Auftragstaktik Environment at Battalion Level", paper in possession of author.

_____. "On Initiative and Control: Implementing FM 100-5," paper in possession of author.

Headquarters, National Training Center, Unit Operations Orders 1989-1990. Center For Army Lessons Learned, Ft. Leavenworth, Kansas.

Pence, Earl and Endicott, Sam. Army Research Institute and Center For Army Leadership, "NTC Leadership Lessons Learned,"_(draft study). In possession of author, 1985.

U.S. Army Science Board, "Close Combat (Heavy) Training Strategy For the 1990's", Ft. Monroe, Virginia, 11 March 1989.

U.S. Army Training Board, "United States Army Training Board Discussion Paper 1-86: Auftragstaktik in the U.S. Army." Ft. Monroe, Virginia, 12 June 1986.

INTERVIEWS

O'Neal, Patrick COL, USA. Interview conducted by author with the Commander, 177th Armored Brigade, Ft. Irwin, California, 23 August 1991.

Shackelford, William COL, USA (ret). Interview conducted by author 16 October 1991, Ft. Leavenworth, Kansas.